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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,453

09/14/2005

Junichi Ueno

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EXAMINER

ROSE, ROBERT A

ART UNIT

PAPER NUMBER

3723

MAIL DATE

DELIVERY MODE

06/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/549,453	Applicant(s) UENO, JUNICHI	
	Examiner Robert Rose	Art Unit 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11 and 19-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11 and 19-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/22/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Receipt is acknowledged of Applicant's Prior Art Statement, filed May 22, 2008.
2. Claims 1-10, 12-18, and 32-34 have been canceled.
3. Claims 11, and 19-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed limitation of "more than 20%" as a critical lower limit of acceptable hole size, is deemed to constitute new matter. Applicant's specification clearly allows for hole sizes smaller than this recited lower starting limit.
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
5. Claims 11, 19, 23, 27, and 31 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Susumu et al (Japan No. 10180623). Susumu et al discloses a wafer holding carrier and double-sided polishing apparatus comprising all of the subject matter set forth in Applicant's claims above. A plurality of polishing-agent passing holes are distributed over the main surface of the carrier to facilitate delivery to the underside of the wafers being polished. Note figure 3 of Susumu et al wherein the holes lie on concentric circles. While the holes size ratio in Susumu et al is given as .8-20%, it is

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clear from figure 4 that hole size ratios greater than 20% were produced, although arbitrarily, the cutoff of acceptability was determined to be 20%, based upon tendency for crack formation. It is clear that wafer carriers having hole size ratios of greater than 20% were conceived and/or produced.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11, 19, 21, 23, 25, 27, 29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Susumu et al(Japan No. 10-180623). Applicant's specification is completely silent as to any criticality of the hole size ratio being "more than 20%". It appears from Applicant's specification that values as low as 15% would work equally well as values somewhat greater than 20%. Without convincing evidence to the contrary, such hole size ratio is regarded as being an obvious matter of design choice to those of ordinary skill in the art depending upon the durability desirable in the final product. With regard to claim 29, the rate of delivery of polishing agent is regarded as an obvious matter of design choice, which would be readily determined by routine experimentation on the part of those of ordinary skill in the art.

8. Claims 20, 22, 24, 26, 28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Susumu et al(Japan No. 10-180623) in view of Fuminari et al(Japan No. 10-202511). Fuminari et al disclose a double-sided wafer polishing apparatus comprising a wafer carrier moved in a curvilinear translational orbiting motion without

rotation. To provide an eccentrically driven carrier in place of the sun and internal gear arrangement in Susumu et al, to deliver a more uniform motion across the wafers would have been obvious in view of Fuminari et al. The Shore A hardness of the polishing pads are regarded as an obvious matter of design choice. With regard to claim 30, the rate of delivery of polishing agent is regarded as an obvious matter of design choice, which would be readily determined by routine experimentation on the part of those of ordinary skill in the art.

9. Applicant's arguments filed March 27, 2008 have been fully considered but they are not persuasive. Applicant has argued that the rejection under 35 USC 112, 1st paragraph should not be maintained, since Applicant has provided evidence of data points within the newly recited narrower range of hole size ratio. The narrower lower limit of hole size ratio of "greater than 20%" as a starting limit, was not conceived by Applicant, and was only introduced as a critical starting point after reviewing the art applied against the broader range. There is absolutely no criticality assigned to this lower limit as a starting point, and Applicant's specification clearly allows for lower values. Applicant has further introduced the additional limitation in independent claim 11, of the polishing agent-passing holes being 30% or less of a main surface of the carrier. This limitation appears to be met by the arrangement of holes in Susumu et al. Note that it is clear from figure 4 of Susumi et al that hole size ratios greater than 20% were produced, and include hole size ratios within the range recited. Moreover, Applicant's specification does not appear to establish any criticality with respect to such range, and in the absence of convincing evidence to the contrary, such range is

regarded as being an obvious matter of design choice to those of ordinary skill in the art.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Rose whose telephone number is (571) 272-4494. The examiner can normally be reached on Monday through Thursday, and on alternate Fridays, from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail, can be reached at (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Robert Rose/
Primary Examiner
Art Unit 3723

Rr

June 8, 2008.